REMARKS

Claims 3-10 are pending in the application. Applicants request reconsideration in view of the remarks set forth below.

Claims 3-10 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the limitation "removing said mask without performing heat treatment" is not described in the specification. While the Examiner does not explicitly explain why he believes there is no support in the specification, Applicants assume that the Examiner's rejection is based on there being no literal statement in the specification that the mask is removed without performing heat treatment. Applicants respectfully traverse.

MPEP 2173.05(i) explains:

> "Any negative limitation or exclusionary proviso must have basis in the original disclosure. * * * Note that a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a prima facie case for lack of descriptive support. *Ex parte Parks*, 30 USPQ2d 1234, 1236 (Bd. Pat. App. & Inter. 1993)."

In *Ex parte Parks*, the Examiner had rejected the limitation "in the absence of a catalyst" because there was no literal statement in the specification to support the limitation. The Board held that "literal support does not, in and of itself, establish a *prima facie* case for lack of adequate descriptive support under the first paragraph of 35 U.S.C. § 112." *Id.* The Board also held that "it is sufficient if the originally-filed disclosure would have conveyed to one having ordinary skill in the art that an appellant had possession of the concept of what is claimed." *Id.* (Emphasis supplied.) In footnote 3, the Board points out that "whether the requirement for an adequate written description has been met is a question of fact and, hence, driven by the exigencies of each case."

In this case, one skilled in the art would have reasonably understood that the mask was removed without performing heat treatment. Indeed, if heat treatment had been intended, there would have to be description in the specification explaining how to carrying out such heat treatment, i.e., preferred temperatures, etc. Instead, carrying out heat treatment is not described in the specification of the application. See the

Received from < 8602425718 > at 10/28/03 12:00:53 PM [Eastern Standard Time]

Specification. In the specification, it is described that the mask 7 is removed after the formation of the source and drain regions, which means none other that the mask 7 is removed without undergoing the stage of heat treatment. In this manner, a layer having an impurity concentration of 10^{13} atom/cc or greater can be prevented from existing among the layers over the thin film transistor. Such result cannot be obtained when heat treatment is used. See Kawasaki (U.S. 6,424,012), column 8, lines 39-57 (explaining that the mask is removed with heat treatment and concentration in the LDD region is 10^{18} atom/cc to 10^{19} atom/cc, and the intrinsic semiconductor layers has an impurity concentration of 10^{16} atom/cc to 10^{17} atom/cc). Accordingly, one skilled in the art would have understood that heat treatment was not being used.

In addition, the specification specifically describe methods for removing the mask that do not have a heat treatment, which include either a lift off method or a spin etcher method, with the spin etcher method being the preferred method. See page 10, line 12-13, which describes that the mask is removed and page 12, line 20 to page 13, line 14, which describe the manner in which the mask is removed.

The Board of Patent Appeals & Interference has consistently held that the specification does not require a literal statement supporting a negative limitation. In *Ex parte Kenneth E. Starling Jr., and Brian J. Love*, 1995 WL 1696871, *2 (Bd. Pat. App. & Inter. 1995), the claim language at issue was "curable without the application of any supplemental heat." The Board held, "Although the disclosure is silent as to the use of heat, it can reasonably be said that appellants' silence would have disclosed to one of ordinary skill in the art that the dental adhesive would have been "curable in the absence of heat." *Id.* (Emphasis supplied.)

The same is true for this specification. If heat treatment were required to remove the mask, then the Applicants would have said so. Instead, the specification does not describe carrying out heat treatment, and the described methods of removing the mask do not involve heat treatment.

Accordingly, the specification does support the limitation "removing said mask without performing heat treatment." Applicants respectfully request that the rejection be withdrawn.

Received from < 8602425718 > at 10/28/03 12:00:53 PM [Eastern Standard Time]

Claim 3, 6-7, and 10 stand rejected under 35 U.S.C. §102(e) as being anticipated by Kawasaki et al. (US 6,424,012) ("Kawasaki"). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the * * * claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner states that he is not considering the limitation "removing said mask without performing heat treatment." However, Applicant respectfully requests that the Examiner consider the limitation, as the specification supports that limitation, as explained above.

Accordingly, claims 3, 6-7, and 10 include the following limitation: "removing said mask without performing heat treatment." Kawasaki does not teach or suggest that limitations.

Kawasaki discloses removal of a channel stopper; however, such removal of a channel protection film is performed after sequentially carrying out doping of impurities, activation of the impurities by thermal annealing, and hydrogenation by heat treatment, in that order. In Kawasaki, a plurality of heat treatment processes are provided between doping of impurities and removal of a protection of a protection film. When a heat treatment is performed, the concentration of impurities in the layers cannot achieve the low concentrations obtained when heat treatment is not used. Accordingly, Kawasaki does not teach or suggest removal of the mask without heat treatment. Applicants respectfully request that the rejection as to claims 3, 6-7, and 10 be withdrawn.

Claims 4-5 and 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawasaki in view of Tsai et al. (US 5,814,530) ("Tsai"). For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

Claims 4 and 5 include all of the limitations of claim 3 and claims 8 and 9 include all of the limitations of claim 7. Thus, as discussed above, Kawasaki does not teach or

Received from < 8602425718 > at 10/28/03 12:00:53 PM [Eastern Standard Time]

suggest all of the limitations of claims 4-5 and 8-9 and Tsai does not remedy the deficiencies. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection as to claims 8 and 9.

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

CANTOR COLBURN LLP

By: _____

Lisa A. Bongiovi
Registration No. 48,933
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002
Telephone (860) 286-2929
Facsimile (860) 286-0115
Customer No. 23413

October 28, 2003

RECEIVED
CENTRAL FAX CENTER
OCT 28 2003

OFFICIAL

Received from < 8602425718 > at 10/28/03 12:00:53 PM [Eastern Standard Time]